

**Rocky Flats Citizens Advisory Board  
Meeting Minutes  
August 1, 2002  
6 to 9:30 p.m.**

**Jefferson County Airport Terminal Building, 11755 Airport Way, Broomfield**

**FACILITATOR:** Reed Hodgins

Jeff Eggleston, the Board's chair, called the meeting to order at 6 p.m.

**BOARD / EX-OFFICIO MEMBERS PRESENT:** Suzanne Allen, Joe Downey, Jeff Eggleston, Tom Gallegos, Shirley Garcia, Victor Holm, Jim Kinsinger, Bill Kossack, Mary Mattson, Nancy Peters / Rick DiSalvo, Dean Rundle

**BOARD / EX-OFFICIO MEMBERS ABSENT:** Maureen Eldredge, Tom Marshall, LeRoy Moore, Earl Sorrels / Steve Gunderson, Jeremy Karparkin, Tim Rehder

**PUBLIC / OBSERVERS PRESENT:** Mark Sattelberg (USFWS); John Corsi (KH); Anna Martinez (DOE-RFFO); Melissa Anderson (RFCLoG); Louise Janson (resident); Rob Henneke (EPA); Lane Butler (KH); Liz Wilson (DOE); Carl Spreng (CDPHE); Alan Trenary (citizen); Jill Hollingsworth (citizen); Kathleen Rutherford (CDPHE); Laura Williams (citizen); Dave Davia (new RFCAB member); Henrietta Jonas (new RFCAB member); Ken Korkia (RFCAB staff); Patricia Rice (RFCAB staff); Deb Thompson (RFCAB staff)

**PUBLIC COMMENT PERIOD:** Deb Thompson, RFCAB staff member, reported on public comment received through the Board's comment line, email, and periodic surveys. She noted that because there was so little time between the July and August Board meetings, a new survey question was not posted this month. Instead, the survey question from last month about process waste lines remained on the web site. Staff received a few additional responses. She then summarized the two public comments received by the office.

- An anonymous caller stated he feels leaving the process waste lines underneath Rocky Flats is insane. He believes that no one can prove this is a safe thing to do.
- A writer from Jefferson County asked how it can be proven the waste lines won't pose a risk if the site acknowledges that they don't know how much contamination exists under the buildings. RFCAB staff responded to his question by providing more detail about the site's proposed risk-based approach to cleanup.

**DISCUSSION OF PROPOSAL FOR BOARD UPDATE TOPICS AND SCHEDULE:** RFCAB staff member Ken Korkia presented a proposal to change the way the Board handles its quarterly updates on Rocky Flats issues. Currently the Board schedules updates on a rotating basis between the Environmental Protection Agency (EPA), the Colorado Department of Public Health and Environment (CDPHE), the Defense Nuclear Facilities Safety Board (DNFSB), and the U.S. Fish and Wildlife Service (FWS). In order to incorporate all issues the Board is interested in following, a new method was proposed. The Board would receive briefings on: 1) natural resources management/Wildlife Refuge planning activities (given by DOE/Kaiser-Hill and FWS); 2) closure progress (given by DOE/Kaiser-Hill, EPA, and CDPHE); and 3) site health and safety performance (given by DOE/Kaiser-Hill and DNFSB). The time allotted for each briefing would be increased from 15 minutes to a minimum of 30 minutes. The Board approved the proposal by unanimous vote. The briefing rotation will begin in October with natural resource management, followed by a safety progress report in November, and a site closure status report at the December meeting. Staff will request a written site closure progress report for the Board's September meeting.

**APPROVE BOARD POLICY ON MEETING AGENDA DEVELOPMENT:** Ken Korkia also presented a draft proposal regarding Board meeting agenda development, and how to approach requested changes or additions to the agenda. The Executive Committee prepares agendas for each meeting based on the structure of the Board's work plan and other issues that may arise. This policy follows the course of action currently taken by the Executive Committee; however, no written policy existed until now. The Board approved the policy unanimously.

**ADMIN RECORD**

SW-A-005383

**PRESENTATION BY RFCA PARTIES ON INTEGRATION OF END-STATE CONSIDERATION:** Rick DiSalvo, DOE-RFFO, gave a presentation on the site's integrated end-state. First, he reiterated some of the points made in a presentation given at the July Board meeting, such as what the agencies are trying to achieve by using a risk-based approach to cleanup, the key assumptions driving their strategy, and the status of agency proposals for cleanup. He then spent some time specifically discussing the agencies' plans for addressing subsurface contamination. As the Board heard in July, the RFCA parties are planning to perform more remediation of surface soil (at a level of 50 pCi/g), with the tradeoff being that less contamination will be cleaned in the subsurface. However, some areas of subsurface contamination will be remediated, particularly the areas of Trench 3, Trench 7, the Ash Pits, and the 903 Pad. In addition, cleanup of the original and present landfills will be addressed independent of the integrated end-state strategy. Regarding subsurface contamination, Mr. DiSalvo noted that extensive characterization has been performed on known and suspected leaks from the original process waste lines (OPWLs). Also, in order to review and confirm conclusions of the Actinide Migration Evaluation studies – which showed that there is no significant migration of plutonium in the subsurface – detailed sampling will be performed on three known plutonium leaks from the OPWLs. Valve vaults will be removed as practical, and the remaining OPWLs will be grouted or foamed. Additional "unbiased" sampling will be performed in the industrial area.

The Rocky Flats Cleanup Agreement (RFCA) parties are on schedule to initiate a formal 60-day public comment period beginning in early September, following a briefing given to the RFCA principals in late August. It is their hope that they will be able to issue responses to comments and implement changes before the end of this year.

Next, Mr. DiSalvo spent some time addressing the Board's concerns that had been highlighted in a preliminary recommendation prepared by the Board's End-State Discussion Steering Committee:

- Cleanup to 50 pCi/g to a depth of six feet is unjustified by the risk-based approach, and could divert resources to what work that might provide minimal risk reduction.
- It may be prudent to establish an upper limit of subsurface contamination.
- The site's new approach to cleanup addresses valve vaults and leaks.
- Regarding land configuration, remediation needs to address the final grade of the site.
- For characterization of contamination, between the site's proposed combination of biased and unbiased sampling, they will achieve a 90% confidence level in the findings.
- Stewardship issues will be considered in remediation decisions for volatile organics, and passive barriers have performed as intended.
- New technologies will continue to be investigated and developed. An ongoing technology program will exist beyond 2006, and will be addressed in the stewardship plan. DOE will continue to explore other cleanup options such as soil vacuuming.
- Regarding any savings realized by this new approach, the community may want to suggest that overall project savings be reapplied toward other projects at Rocky Flats.
- Stewardship plans will be developed. DOE is also committed to maintenance of any institutional controls necessary after the site is closed.

He concluded that DOE believes its proposal is responsive to community concerns and values, and that it provides more cleanup and risk reduction than is currently planned without impacting project cost or schedule.

Board members then asked some clarifying questions that addressed issues such as how the risk analysis will be performed; plans for remediation of newer waste lines; whether contamination may ever be chased beyond three feet; what regulations apply to the valve vaults; and the method of grouting and filling OPWLs.

**BOARD DISCUSSION:** Most of the meeting was spent on Board discussion in preparation for developing recommendations on end-state issues. Victor Holm, co-chair of the End-State Discussion Steering Committee, led the discussion. He asked the Board to consider several key questions to help draft recommendation language. Highlights of Board comments follow each question, along with a brief summary of the discussion after each comment section.

Question 1. Can the Board accept the tradeoff? What are the Board's thoughts on budget limitations versus tradeoffs?

- The Board's mission is not about deciding how it gets done, but what we want done. Some of the budget concerns may cross that line.
- We want to reduce risk and have the site cleaned as much as possible, but how do we do that? One problem is that we are not clear about whether we agree with the analysis that's been done so far to support the risk-based approach.
- The tradeoffs are already being made for us – against our past recommendations – and are being forced on us. Would like to have budget issues brought into the discussion.
- Not sure the only or best way to clean the site is to dig up everything and remove it. Tradeoffs are valuable and worth looking at, although we may not like all the options being given to us. Budget constraints are a reality.
- Cleanup to background is our ideal, but is impossible to accomplish right now. We have to focus more on stewardship instead. Don't have a problem with the idea of tradeoffs, but don't like the options being proposed. It's important to have a stewardship plan in place.
- The difference is choosing between ideals or a pragmatic approach. Other sites also have budget problems that make it impossible to do what they want to do. Our recommendation will be stronger if we work on the tradeoffs.
- The reality is the site can clean to  $10^{-4}$  and consider it done. Would prefer the term "revenue neutral" to "tradeoffs." Worried about the potential failure of institutional controls. A three foot depth is not enough.
- We need to stop talking about budget and monetary issues. That's not going to change. We need to help make the cleanup as good as we can with what is available.
- Three feet is not acceptable. Agree that there is not much point in discussing budget any more, unless we discuss it with Congress. Tradeoffs are okay, as long as we don't trade away too much for future generations.
- The severely contaminated area is relatively small.
- Would like to see a two-pronged approach: the industrial area versus the buffer zone. The highest risk is in the 700 area.
- Don't want to see the Board backpedaling on its goals and priorities.
- Believe the site will be safe with most of these tradeoffs. Other sites need more work done than Rocky Flats.

Summary: The recommendation needs to address both the budget and tradeoffs.

Question 2. The tradeoff is to prioritize surface cleanup and leave subsurface contamination where no pathway to the surface is present. Is this the right strategy?

- Surface soil and surface water are the most important issues. Can live with leaving subsurface where no pathway exists as long as we can agree on an appropriate depth.
- Would prefer to see a 95% confidence rate in sampling, to give us more confidence that sampling is covering all bases.
- There potentially will be great savings from not doing subsurface cleanup or going after underbuilding contamination. That difference is probably higher than the extra costs involved with cleaning up surface to 50 pCi/g.
- Not happy with what we are calling subsurface right now, and what is being considered a pathway. The overall scheme may be good, but the details need a lot of work.
- How will institutional controls be maintained? Need to include funding for that. The more you leave behind, the more controls you need to have, so where will the tradeoff ultimately take place?
- Prioritizing surface cleanup is good, in order to keep surface risk as low as possible. What is considered "subsurface" is a concern. Not enough certainty about the mobility of underground contamination, beyond

50 years or more. It is more important to remove it where we know it exists. If we're already digging in a contaminated area, why not keep going and finish the job? Three feet is too close to the surface, especially in the long-term. Need to go down to six feet.

- There is an arbitrary boundary of three feet being set. Need to define and clean up the contamination.
- Happy with prioritizing surface cleanup. It's important to leave the subsurface alone. There is not going to be much erosion. Don't believe there is that much contamination.
- Okay with prioritizing surface contamination, but have a problem with subsurface. Do we really know what all the pathways are now, and into the future? We need to look further, and not set an arbitrary boundary.

Summary: We want to prioritize surface remediation, but also want to put additional considerations on remediation of the subsurface.

Question 3. Surface soil will be cleaned to 50 pCi/g. Look at new technologies for soil below that contamination level.

- No problem with setting cleanup at 50 pCi/g, but not sure what impact other technologies might have.
- Has 50 pCi/g been agreed to already?
- Would like to see a statement: "clean surface to a maximum of 50 pCi/g."
- Not comfortable with this discussion since we have not yet reached consensus on whether we agree with 50 pCi/g.
- Wish that 50 pCi/g were a lower number, but I can live with this number. Believe that  $10^{-5}$  is a good risk number and is protective. Some want it calculated based on a subsistence farmer, but it's not likely DOE will change. But we can always say that we want it lower and continue to push them for more.
- Have no expectation that  $10^{-6}$  would be achieved as an excavation number, but would like justification for why another number is picked. Not sure that we have received that justification.
- Key people are not present for this discussion, so it is not worthwhile to continue.

Summary: Since a few key Board members were not present at this meeting, discussion about whether the Board agrees with setting the cleanup level at 50 pCi/g will be deferred to the September meeting.

Question 4. Regarding subsurface contamination issues: depth of surface; characterization (how do we know what will be left behind); upper limit of contamination; non-rads; land configuration.

- If something is there, you need to remove it to whatever depth is agreed upon.
- Need to change surface soil definition to more than six inches because characterization will not be done beyond six inches. It's important to look deep enough for contamination to make sure if something is there. Is there enough spacing between the characterization samples? Need more information about how characterization it is done.
- It bothers me to use arbitrary numbers without logic or background as to why the numbers are chosen. For instance, why six inches, why three feet, why 90 percent? Another less arbitrary number, based on more efficient data, might be more appropriate.
- Three feet is not very deep. It's easy to dig that far down. More comfortable with six feet because it seems safer. More concerned with pathways, and how to determine that nothing will be brought to the surface from burrowing animals. Also need to protect wildlife.
- One option is to consider a tiered approach. Need to also consider the volume. Need to have a ceiling and make sure that nothing above that ceiling is left behind.
- Another consideration is non-rad contamination, and that's where source removal has the most benefit. It's easier to clean up a source than try to remediate it later.
- Three feet is too short for there to be no pathway to the surface. Need to be convinced that there is no way for the contamination to get to the surface before we leave it there. If we know it's there, we need to do something about it.

- Determine the volume and the concentration, and whenever you find a contiguous area of contamination, clean it up.

Summary: Might want to consider cleanup to 50 pCi/g, or until you have confidence there is no pathway to the surface or water. Either you drop below 50 pCi/g in the concentration level, or you can confidently prove there is no pathway that will exceed  $10^{-5}$ . If you know it's there, remove it all.

**REVIEW OF END-STATE RECOMMENDATION TOPICS:** At the Board's next meeting, members will focus on addressing the 50 pCi/g issue, as well as any additional issues raised at this meeting, so that the Board can begin drafting a recommendation. The End-State Discussion Steering Committee will begin to draft beginning recommendation language based on what was discussed at the August Board meeting. It may be necessary for the committee to bring alternatives for the Board to review on those issues where there doesn't seem to be consensus.

**APPROVAL OF LETTER TO RFCA PRINCIPALS:** The End-State Discussion Steering Committee submitted a draft letter for the Board's approval. This letter, addressed to the RFCA principals, asked that there be a 30-day delay in the release of revisions to RFCA Attachments 5 and 10. The primary reason for submitting the letter was to allow more time for the Board to develop informal comments and recommendations. Board members approved a revised letter. The letter states that the Board intends to submit comments and/or recommendations to the RFCA principals immediately following its November 7 meeting. Thus, the principals were asked to ensure that Board comments would be included by changing the due date to occur after November 7.

**NEXT MEETING:**

*Date: September 5, 2002, 6 to 9:30 p.m.*

*Location: Jefferson County Airport Terminal Building, Mount Evans Room, 11755 Airport Way, Broomfield*

*Agenda: RFCAB annual work plan development; end-state discussion*

**MEETING ADJOURNED AT 9:20 p.m. \***

(\* Taped transcript of full meeting is available in the RFCAB office.)

RESPECTFULLY SUBMITTED:

Shirley Garcia, Secretary  
Rocky Flats Citizens Advisory Board

---

The Rocky Flats Citizens Advisory Board is a community advisory group that reviews and provides recommendations on cleanup plans for Rocky Flats, a former nuclear weapons plant outside of Denver, Colorado.

---

[Home](#) | [About RFCAB](#) | [Board Members](#) | [About Rocky Flats](#) | [RFCAB Documents](#) | [Related Links](#) | [Public Involvement](#) | [Board Vacancies](#) | [Special Projects](#) | [Contact](#)